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We claim:

- A method for the diagnosis of Lyme Disease, the method comprising: contacting a sample
 to be tested with a recombinant FlaA protein, incubating for a sufficient time to allow
 formation of specific antibody-FlaA complexes, and detecting the antibody-FlaA
 complexes.
- 2. The method of claim 1 wherein said recombinant FlaA protein comprises a fusion protein.
- 3. The method of claim 2 wherein said fusion protein is an approximately 38 kDa T7 gene
- 4. The method of claim 1, wherein the FlaA protein comprises an amino acid sequence as shown in SEQ ID NO:2.
- 5. The method of claim 4, wherein the FlaA protein comprises amino acids 1-319 of the amino acid sequence of SEQ ID NO:2.
- 6. The method of claim 1, wherein the FlaA protein comprises an amino acid sequence encoded by the nucleic acid sequence as shown in SEQ ID NO:3.
- 7. The method of claim 1, wherein the FlaA protein lacks a signal peptide.
- 8. The method of claim 1, wherein the FlaA protein is immobilized on a solid support.
- 9. The method of claim 1, wherein the FlaA protein further comprises a detectable label.
- 10. The method of claim 10, wherein the label is selected from the group consisting of a chemiluminescent label, a radioactive label, and a colorimetric label.
- 11. The method of claim 1, wherein the antibody-FlaA complex is detected by specific protein binding to the antibody specific for FlaA.
- 12. The method of claim 1, wherein the antibody is of the IgM subclass.
- 13. The method of claim 13, wherein the fusion partner of the FlaA fusion protein does not interfere with the antigenic epitopes of the FlaA protein.
- 14. The method of claim 1, wherein the steps are performed manually.
- 15. The method of claim 1, wherein the steps are automated.
- 16. A method for producing FlaA protein, the method comprising: providing freshly transformed host cells; constructing a DNA expression vector containing an expressible

FlaA encoding DNA sequence; transforming a suitable host cell with said expression vector; plating out said transformed host cells; preparing large scale primary cell cultures from transformed host cells taken from a fresh transformant colony; and inducing FlaA protein expression from host cells in culture to produce a recombinant FlaA protein.

- 17. The method of claim 17, wherein the recombinant FlaA protein is encoded by a nucleic acid sequence as shown in SEQ ID NO:1.
- 18. The method of claim 17, wherein the FlaA protein comprises an amino acid sequence as shown in SEQ ID NO:2.
- 19. The method of claim 19, wherein the FlaA protein comprises amino acids 1-319 of the amino acid sequence of SEQ ID NO:2.
- 20. The method of claim 17, wherein the FlaA protein comprises an amino acid sequence encoded by the nucleic acid sequence as shown in SEQ ID NO:3.
- 21. The method of claim 17, wherein the FlaA protein is a fusion protein.
- 22. The method of claim 22, wherein the fusion protein comprises an approximately 38 kDa T7 gene 10 product.
- 23. The method of claim 17 wherein said transformed host cell is an E. coli cell.